

In the Claims:

Please cancel claims 1-13. Please add new claims 14-43. The claims are as follows.

1-13. (Canceled)

14. (New) A method for managing insertion operations in a recursive scalable template instance (RSTI) of a multi-dimensional electronic data table having a first data table dimension (D1) and a second data table dimension (D2), said RSTI comprising a plurality of contiguous recursive element instances (REIs) ordered and aligned along the dimension D1, at least two REIs having a different size along the dimension D1, each REI having a same size along the dimension D2, each REI comprising at least one scalable template instance (STI), said method implemented by execution of a computer program by a processor of a computer system, said method comprising:

inserting, upon satisfaction of at least one consistency condition, one or more contiguous elements after or before a selected element in a first STI of at the least one STI of a first REI of the plurality of REIs of the RSTI, the RSTI structured according to an associated recursive scalable template (RST), said RST comprising a recursive element (RE) including at least one scalable template (ST), each STI of each REI structured according to an associated ST of the at least one ST, each STI of each REI having a first dimension aligned along the dimension D1 and a second dimension aligned along the dimension D2, an element being defined as a range of data that comprises at least one datum, the one or more contiguous elements structured according to a first ST associated with the first STI; and

adjusting a size of the first REI along the dimension D1 according to a size of a largest STI in the first REI, all REIs of the RSTI remaining contiguous without overlapping after said inserting the one or more contiguous elements and after said adjusting the size of the first REI.

15. (New) The method of claim 14, wherein the at least one consistency condition has been satisfied, and wherein the method further comprises:

inserting the one or more contiguous elements after or before the selected element in the first STI.

16. (New) The method of claim 14, wherein the RST comprises a header part and/or a footer part, the header part and/or the footer part of the RST comprising at least one recursive meta-elements (RME), wherein each RME comprises at least one ST, wherein the RSTI comprises a header part and/or a footer part, wherein the header part and/or the footer part of the RSTI corresponds to the header part and/or the footer part of the RST, wherein the header part and/or the footer part of the RSTI comprises at least one REI of the plurality of REIs of the RSTI, wherein the method further comprises:

inserting one or more contiguous meta-elements after or before a selected meta-element in a second STI of at the least one STI of a second REI of the at least one REI of the header part and/or the footer part of the RSTI; and

adjusting a size of the second REI along the dimension D1 according to a size of a largest STI in the second REI, all REIs of the RSTI remaining contiguous without overlapping after said

inserting the one or more contiguous meta-elements and said adjusting the size of the second REI.

17. (New) The method of claim 14, wherein the method further comprises:

inserting a second REI after or before a selected REI of the plurality of REIs of the RSTI;
aligning along the dimension D1 the second REI with the plurality of REIs, wherein the second REI has the same size comprised by the other REIs along the dimension D2; and
structuring the second REI according to a RE defined for the second REI.

18. (New) The method of claim 14, wherein the method further comprises:

determining whether said inserting one or more contiguous elements would corrupt another RSTI in the data table, wherein a said another RSTI is corrupted if said another RSTI is no longer structured according to its associated RST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI in the data table.

19. (New) The method of claim 18, wherein the method further comprises:

cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI, wherein said another RSTI has been defined as a critical RSTI.

20. (New) The method of claim 14, wherein said method further comprises:

determining said inserting one or more contiguous elements would corrupt another STI in the data table, wherein a said another STI is corrupted if said another STI is no longer structured according to its associated ST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another STI in the data table.

21. (New) The method of claim 20, wherein the method further comprises:

cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another STI, wherein said another STI has been defined as a critical STI.

22. (New) The method of claim 14, wherein the multidimensional electronic data table is an electronic spreadsheet having a plurality of dimensions and comprising a plurality of cells identified by a cell address along each dimension of the plurality of dimensions, and wherein the plurality of dimensions comprises the dimension D1 and the dimension D2.

23. (New) The method of claim 14, wherein each STI of the at least one STI comprises contiguous elements of a same size ordered and aligned along the dimension D1 or D2, wherein the first ST comprises an element format (EF) and/or an element profile (EP), said EF defining for each cell within each element of the first ST at least one format attributes, said EP defining a cell content and a cell destination for each cell within each element of the first ST, said cell

destination specifying whether the cell is an input cell for receiving an entry or an output cell for producing a result.

24. (New) A computer system comprising a processor and a computer readable memory unit coupled to the processor via a system bus, said memory unit containing instructions that when executed by the processor implement a method for managing insertion operations in a recursive scalable template instance (RSTI) of a multi-dimensional electronic data table having a first data table dimension (D1) and a second data table dimension (D2), said RSTI comprising a plurality of contiguous recursive element instances (REIs) ordered and aligned along the dimension D1, at least two REIs having a different size along the dimension D1, each REI having a same size along the dimension D2, each REI comprising at least one scalable template instance (STI), said method comprising:

inserting, upon satisfaction of at least one consistency condition, one or more contiguous elements after or before a selected element in a first STI of at the least one STI of a first REI of the plurality of REIs of the RSTI, the RSTI structured according to an associated recursive scalable template (RST), said RST comprising a recursive element (RE) including at least one scalable template (ST), each STI of each REI structured according to an associated ST of the at least one ST, each STI of each REI having a first dimension aligned along the dimension D1 and a second dimension aligned along the dimension D2, an element being defined as a range of data that comprises at least one datum, the one or more contiguous elements structured according to a first ST associated with the first STI; and

adjusting a size of the first REI along the dimension D1 according to a size of a largest STI in the first REI, all REIs of the RSTI remaining contiguous without overlapping after said inserting the one or more contiguous elements and after said adjusting the size of the first REI.

25. (New) The computer system of claim 24, wherein the at least one consistency condition has been satisfied, and wherein the method further comprises:

inserting the one or more contiguous elements after or before the selected element in the first STI.

26. (New) The computer system of claim 24, wherein said RST comprises a header part and/or a footer part, the header part and/or the footer part of the RST comprising at least one recursive meta-elements (RME), wherein each RME comprises at least one ST, wherein the RSTI comprises a header part and/or a footer part, wherein the header part and/or the footer part of the RSTI corresponds to the header part and/or the footer part of the RST, wherein the header part and/or the footer part of the RSTI comprises at least one REI of the plurality of REIs of the RSTI, wherein the method further comprises:

inserting one or more contiguous meta-elements after or before a selected meta-element in a second STI of at the least one STI of a second REI of the at least one REI of the header part and/or the footer part of the RSTI; and

adjusting a size of the second REI along the dimension D1 according to a size of a largest STI in the second REI, all REIs of the RSTI remaining contiguous without overlapping after said inserting the one or more contiguous meta-elements and said adjusting the size of the second REI.

27. (New) The computer system of claim 24, wherein the method further comprises:

inserting a second REI after or before a selected REI of the plurality of REIs of the RSTI;

aligning along the dimension D1 the second REI with the plurality of REIs, wherein the second REI has the same size comprised by the other REIs along the dimension D2; and structuring the second REI according to a RE defined for the second REI.

28. (New) The computer system of claim 24, wherein the method further comprises:

determining whether said inserting one or more contiguous elements would corrupt another RSTI in the data table, wherein a said another RSTI is corrupted if said another RSTI is no longer structured according to its associated RST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI in the data table.

29. (New) The computer system of claim 28, wherein the method further comprises:

cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI, wherein said another RSTI has been defined as a critical RSTI.

30. (New) The computer system of claim 24, wherein said method further comprises:

determining said inserting one or more contiguous elements would corrupt another STI in the data table, wherein a said another STI is corrupted if said another STI is no longer structured according to its associated ST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another STI in the data table.

31. (New) The computer system of claim 30, wherein the method further comprises:

cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another STI, wherein said another STI has been defined as a critical STI.

32. (New) The computer system of claim 24, wherein said multidimensional electronic data table is an electronic spreadsheet having a plurality of dimensions and comprising a plurality of cells identified by a cell address along each dimension of the plurality of dimensions, and wherein the plurality of dimensions comprises the dimension D1 and the dimension D2.

33. (New) The computer system of claim 24, wherein each STI of the at least one STI comprises contiguous elements of a same size ordered and aligned along the dimension D1 or D2, first ST comprising an element format (EF) and/or an element profile (EP), said EF defining for each cell within each element of the first ST at least one format attributes said EP defining a cell content and a cell destination for each cell within each element of the first ST, said cell destination specifying whether the cell is an input cell for receiving an entry or an output cell for producing a result.

34. (New) A computer program stored in a computer readable memory unit, said computer program comprising instructions that when executed by a processor of a computer system implement a method for managing insertion operations in a recursive scalable template instance (RSTI) of a multi-dimensional electronic data table having a first data table dimension (D1) and a second data table dimension (D2), said RSTI comprising a plurality of contiguous recursive element instances (REIs) ordered and aligned along the dimension D1, at least two REIs having a different size along the dimension D1, each REI having a same size along the dimension D2, each REI comprising at least one scalable template instance (STI), said method comprising:

inserting, upon satisfaction of at least one consistency condition, one or more contiguous elements after or before a selected element in a first STI of at the least one STI of a first REI of the plurality of REIs of the RSTI, the RSTI structured according to an associated recursive scalable template (RST), said RST comprising a recursive element (RE) including at least one scalable template (ST), each STI of each REI structured according to an associated ST of the at least one ST, each STI of each REI having a first dimension aligned along the dimension D1 and a second dimension aligned along the dimension D2, an element being defined as a range of data that comprises at least one datum, the one or more contiguous elements structured according to a first ST associated with the first STI; and

adjusting a size of the first REI along the dimension D1 according to a size of a largest STI in the first REI, all REIs of the RSTI remaining contiguous without overlapping after said inserting the one or more contiguous elements and after said adjusting the size of the first REI.

35. (New) The computer program of claim 34, wherein the at least one consistency condition has been satisfied, and wherein the method further comprises:

inserting the one or more contiguous elements after or before the selected element in the first STI.

36. (New) The computer program of claim 34, wherein said RST comprises a header part and/or a footer part, the header part and/or the footer part of the RST comprising at least one recursive meta-elements (RME), wherein each RME comprises at least one ST, wherein the RSTI comprises a header part and/or a footer part, wherein the header part and/or the footer part of the RSTI corresponds to the header part and/or the footer part of the RST, wherein the header part and/or the footer part of the RSTI comprises at least one REI of the plurality of REIs of the RSTI, wherein the method further comprises:

inserting one or more contiguous meta-elements after or before a selected meta-element in a second STI of at the least one STI of a second REI of the at least one REI of the header part and/or the footer part of the RSTI; and

adjusting a size of the second REI along the dimension D1 according to a size of a largest STI in the second REI, all REIs of the RSTI remaining contiguous without overlapping after said inserting the one or more contiguous meta-elements and said adjusting the size of the second REI.

37. (New) The computer program of claim 34, wherein the method further comprises:

inserting a second REI after or before a selected REI of the plurality of REIs of the RSTI;

aligning along the dimension D1 the second REI with the plurality of REIs, wherein the second REI has the same size comprised by the other REIs along the dimension D2; and structuring the second REI according to a RE defined for the second REI.

38. (New) The computer program of claim 34, wherein the method further comprises:

determining whether said inserting one or more contiguous elements would corrupt another RSTI in the data table, wherein a said another RSTI is corrupted if said another RSTI is no longer structured according to its associated RST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI in the data table.

39. (New) The computer program of claim 38, wherein the method further comprises:

cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another RSTI, wherein said another RSTI has been defined as a critical RSTI.

40. (New) The computer program of claim 34, wherein said method further comprises:

determining said inserting one or more contiguous elements would corrupt another STI in the data table, wherein a said another STI is corrupted if said another STI is no longer structured according to its associated ST, and wherein the at least one consistency condition comprises that said determining has determined that said inserting one or more contiguous elements would corrupt said another STI in the data table.

41. (New) The computer program of claim 40, wherein the method further comprises:
cancelling said inserting one or more contiguous elements if said determining has determined that said inserting one or more contiguous elements would corrupt said another STI, wherein said another STI has been defined as a critical STI.
42. (New) The computer program of claim 34, wherein said multidimensional electronic data table is an electronic spreadsheet having a plurality of dimensions and comprising a plurality of cells identified by a cell address along each dimension of the plurality of dimensions, and wherein the plurality of dimensions comprises the dimension D1 and the dimension D2.
43. (New) The computer program of claim 34, wherein each STI of the at least one STI comprises contiguous elements of a same size ordered and aligned along the dimension D1 or D2, first ST comprising an element format (EF) and/or an element profile (EP), said EF defining for each cell within each element of the first ST at least one format attributes said EP defining a cell content and a cell destination for each cell within each element of the first ST, said cell destination specifying whether the cell is an input cell for receiving an entry or an output cell for producing a result.